

collected this species from the banks of small, fast flowing hill streams. According to Annandale (1915) this species is abundant in the Travancore Hills.

***Rana malabarica* Tschudi, 1838**

1 adult female (Cotigao). 54.5 mm SVL and 26.9 mm tibia.

This specimen was collected in the open country during rain. Daniel (1975) has also reported that this species preferred forested land though it has been recorded in open country particularly in the breeding season.

***Rana tigerina* Daudin, 1802**

12 juveniles (2 Sanguem, 8 Molem, 2 Cotigao). 19.2-35.0 mm SVL, 9.0-18.1 mm tibia. The vertebral streak is very thin but the lateral band from behind the eye is very prominent. Body green above with dark brown spots and markings and pale white below. Toes fully webbed.

All the specimens were collected from grass fields in different localities. The green body colour matched the green of the grass.

8 adult males and 3 adult females (4 males Volpoi, 4 males Cotigao, 3 females Cotigao). 18.7-20.75 mm SVL, mean 19.53; tibia 8.0-9.65 mm, mean 8.86 in males. 24.05-24.4 mm SVL, mean 24.18; tibia 9.90-10.45 mm, mean 10.17 in females. According to Annandale (1919) this is a dwarf race of *Rana limnocharis*. The specimens from Goa closely agree with his description. Hindlimbs short. The first finger hardly extends beyond the second. Toes slightly webbed, less so than in *Rana limnocharis*. The tibio-tarsal articulation reaches the tympanum or posterior border of the eye. A narrow pale mid-dorsal line present. Dorsal surface dark brown with broken longitudinal glandular folds. Ventral surface white. Thighs barred. In all the specimens the lips are pale white without any dark vertical bars. In this respect they differ from *Rana limnocharis*. Throat black in males. Females with matured pigmented ova.

All the specimens were collected from grass fields with rain water pools in association with *Rana limnocharis* and *Microhyla ornata*. The call was totally different from that of *Rana limnocharis*, resembling the bleating of sheep.

***Rana syhadrensis* Annandale, 1919**

February 11, 1991

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REFERENCES

- ABDULALI, H. & SEKAR, A.G. (1988): On a small collection of amphibians from Goa. *J. Bombay nat. Hist. Soc.* 85: 202-205.
- ANNANDALE, N. (1915): Some undescribed tadpoles from the hills of Southern India. *Rec. Ind. Mus.* 15: 17-23.
- ANNANDALE, N. (1919): Some frogs from streams in the Bombay Presidency. *Rec. Ind. Mus.* 16: 123-124.
- BOULENGER, G.A. (1920): A monograph on the South Asian, Papuan, Melanesian and Australian frogs of the Genus *Rana*. *Rec. Ind. Mus.* 20: 1-223.
- DANIEL, J.C. (1975): Field guide to the amphibians of western India. Part 3. *J. Bombay nat. Hist. Soc.* 72: 506-522.

27. NEW RECORD OF A CROAKER, *JOHNIUS COITOR* (HAMILTON-BUCHANAN) (PISCES: SCIAENIDAE) FROM TRIPURA, NORTH-EAST INDIA

(With a text-figure)

During the course of systematic studies on the fish fauna of Tripura, a specimen of a croaker fish was collected from the river Gumti, Tripura. On examination, it proved to be a specimen of *Johnius coitor* (Hamilton-Buchanan). A perusal of existing literature on the fish fauna of north-eastern India

including Datta (1977), Lipton (1983-84), Sen (1985), Bhattacharya (1988) and Barman (1988) shows that this fish is not yet known from Tripura or from the other north-eastern states. Therefore, the presence of this fish in the rivers of Tripura, extends its range of distribution to north-east India.

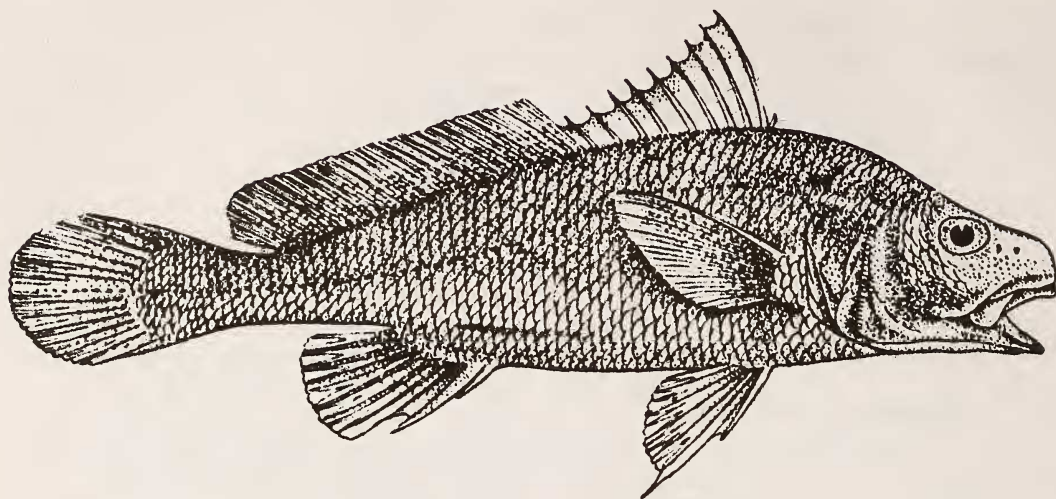


Fig. 1. *Johnius coitor* (Hamilton-Buchanan)

A brief description of the species is given below along with an illustration.

1822. *Bola coitor* Hamilton-Buchanan, *Fish. Ganges*: 75, 368, pl.27, fig. 24 (type-locality : River Ganges).

1876. *Sciaena coitor*, Day, *Fish. India*: 187, pl. 44, fig. 3; 1889. Day, *Fauna Br. India. Fish 2*: 115-116, fig. 49.

1981. *Johnius coitor*, Jayaram, *Handbk. Freshw. Fish. India*: 327 (distribution).

**Local name:** Bola. **English name:** Croaker.

**Material examined:** 1 ex., 140 mm SL.; Gumti river, Udaipur, south Tripura; N.C. Ghose: 3 November 1989.

**Diagnostic features:**

D. 10/1-2/26-29, A.2/7, LL. 48-51

Head length 4.25 to 4.75 and body depth 4.50 to 4.75 in total length. Eye diameter 4.00 to 5.50 in head length. Upper jaw slightly longer. Swim bladder hammer-shaped anteriorly and laterally expanded in front of a strongylation (hammer-headed); posterior

end tapering to a narrow tube extending to base of anal spine, bearing 11 to 13 pairs of arborescent appendages.

**Colour in alcohol:** Body silvery, shot with gold and purple; upper half of first dorsal blackish. Soft dorsal, caudal and anal fins dark externally. Anal fin with darkish basal band.

**Distribution:** Throughout the larger rivers of India and Burma, Bangladesh and South China.

**Size:** Grows upto 300 mm in total length.

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REFERENCES

BARMAN, R. P. (1988): The fishes of the river Gumti, Tripura, North-Eastern India. *Rec. zool. Surv. India, Occ. Paper No. 119*: 1-86, fig. 74.

BHATTACHARYA, T. (1988): Final report of the Himalayan Eco-development Project. Integrated water management of the Gumti river valleys. Tripura University Publication, Agartala, Tripura.

DATTA, A.K. (1977): On a collection of fishes from Tripura state. *Newsl. zool. Surv. India 3 (4)*: 217 - 223.

LIPTON, A. P. (1983-84): Fish fauna of Tripura. *Matsya 9 & 10*: 110-118

SEN, T. K. (1985): The fish fauna of Assam and the neighbouring North-Eastern states of India. *Rec. zool. Surv. India, Oc. Paper no. 64*: 1 - 216.